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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/808,944 | 03/25/2004 | Laszlo Varga | 16274.172 | 6886 |

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EXAMINER

NGUYEN, TUAN N

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2828

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/808,944 | Applicant(s) VARGA ET AL. | |
| | Examiner Tuan N. Nguyen | Art Unit 2828 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-28 is/are allowed.
- 6) ☒ Claim(s) 1,6,8,9,11,13,18, 19 and 21 is/are rejected.
- 7) ☒ Claim(s) 2-5,7,10,12 and 14-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>03/25/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of 35 U.S.C. 102(b) which forms the basis for all obviousness rejections set forth in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 6, 8, 9, 11, 13, 19, 21 are rejected under 35 U.S.C. 102(a) as being unpatentable Murata (US 6795458).

With respect to claims 1, 11 Murata '458 shows and discloses a temperature compensation system for a laser (*Title/ Abstract*) (*Col 16: 30-55*), the temperature compensation system comprising: a laser driver having a first potentiometer (*Fig 1: 12c, 13a first potentiometer measuring electromotive force*), the laser driver configured to provide a first signal to a laser based on a value of the first potentiometer (*Fig 1: 2,6 driving circuit #6 provide a first signal to a laser #2*)(*Col 7: 54-67*); an optical communication analyzer configured to provide a second signal indicative of a first output parameter of the laser (*Fig 1: 4 an optical communication analyzer / photodetector #4 detect first laser output L_{back}*); and a computer system configured to drive the first signal and receive the second signal and determine a first updated value for the first potentiometer to obtain a first desired laser output parameter value based on a first known value of the first potentiometer, the second signal, and the first desired laser output parameter value (*Fig 1: #10, 24 computer and control system drive the first signal and receiving the second signal #28, from the feedback 10a L_{Back} to obtain a first desired laser base on a value of first, second, and first desired laser output feedback #12c/d, 13, 4*)(*Col 1: 20-67*). Since claim 11 recites the same or identical elements/limitations it is

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inherent to use patents '458 to recite the method of compensating temperature variation of a laser diode, product by process.

With respect to claim 6, Murata '458 shows and discloses a memory storing a temperature compensation program; and a processor, which executes the temperature compensation program instructions (*Fig 1: 20, 22a/b control means and memory, and CPU #24*)(*Col 16: 30-55*) to: select a first setting for a first potentiometer for controlling a bias current of a laser diode (*Fig 1: 16a bias current circuit to laser diode #2*) (*Col 4: 30-55*); receive a measurement of an average power of the laser diode; and calculate a second setting for the first potentiometer based on the first setting for the first potentiometer, the measurement of the average power, and a desired average power (*Col 3-4 receiving the average power of the laser diode #2 output, and calculate second setting based on first/previous potentiometers # 12c/d, 13, average power and desired power of the control laser control system*)(*Col 3-4*)(*Col 7-8: 30-67*).

With respect to claims 8, 9, 13, 21 it is inherent for the control system executes the temperature compensation program instructions to set the *temperature of the laser diode to a selected value*, and the temperature compensation program instructions is stored in the memory (*Fig 1: 24, 22a, b, 20 CPU, memory, and control means*), or setting the temperature of the laser diode to a selected value or desired value.

With respect to claim 19, Murata '458 shows and discloses a computer readable medium for use in a computer system comprising: a computer readable program code means for causing a computer to: select a first setting for a first potentiometer for

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controlling a bias current of a laser diode; receive a measurement of an average power of the laser diode; and calculate a second setting for the first potentiometer based on the first setting for the first potentiometer, the measurement of the average power, and a desired average power (*Fig 1: 24, 22a/b, 20, CPU, memory, control means, and program codes Fig: 5a/ 5b,6,8,9,14-17*) (*See claims 1,11,6 rejection for controlling bias current and calculate using the feedback*)(*Col 7-8: 30-67*).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or non-obviousness.
4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murata (US 6795458).

With respect to claim 18, Murata '458 teaches the above. The claim further requires wherein calculating the second setting for the first potentiometer comprises a

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given equation. It has been held that where the general conditions of a claim are disclosed in the prior art, disclosing the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

REASON FOR ALLOWANCE

Allowable Subject Matter

5. The following is an examiner's statement of reasons for allowance - Applicant's response filed on 12/15/2004 has been considered, with respect to claims 22-28 the references of the record fail to teach or suggest a fiber optic transmitter comprising:

Claim 22:

a laser with a first potentiometer controlling a bias current of the laser, and a second potentiometer for controlling a modulation current of the laser, *wherein a first value of the first potentiometer is set for a specific temperature by selecting a second value for the first potentiometer, measuring an average power of the laser; and calculating the first value for the first potentiometer based on the second value for the first potentiometer, the measured average power, and a desired average power; and wherein a third value of the second potentiometer is set for the specific temperature by selecting a fourth value for the second potentiometer; measuring an extinction ratio of the laser; and calculating the third value for the second potentiometer based on the fourth value for the second potentiometer, the measured extinction ratio, and a desired extinction ratio.*

Allowable Subject Matter

Claims 2-5, 7-10, 12, 14-17, 20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The references of the record fail to teach or suggest:

Claim 2:

The laser with second potentiometer, where the *laser driver and the optical analyzer provides a third and fourth signals* based on the second potentiometer value, *the computer drive the third and receive the fourth signal* to update a second value based on a second known value from *the second potentiometer, the fourth signal, and the second desired laser output parameter*.

Claim 7, 12, 20:

wherein the processor compensation is to select a third setting for a second potentiometer for controlling a the laser modulation current, while receiving an extinction ratio of the laser diode, and *calculate a fourth setting for the second potentiometer based on the third setting for the second potentiometer, the measurement of the extinction ratio, and a desired extinction ratio*.

Communication Information

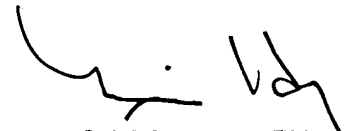
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (571) 272-1948. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harvey Minsun can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan N. Nguyen



MINSUN OH HARVEY
PRIMARY EXAMINER